

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-2, and 4-22 will be pending. No new matter has been added.

§103 Rejection of Claims 1-2, 5-8, 12, 15-16, 18 and 21

In Section 3 of the Office Action, the Examiner has rejected claims 1-2, 5-8, 12, 15-16, 18 and 21 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer (U.S. Patent 6,393,496; hereinafter referred to as “Schwaderer”) in view of Kanamori (U.S. Patent 6,338,079; hereinafter referred to as “Kanamori”). This rejection is respectfully traversed below.

The structure of method claim 1, for communication between an application program and a network device driver program through intermediate structure software, comprises the steps of:

- a. supplying of application data units from the application program to a first program object being part of the intermediate structure software;
- b. performing of first functions of the first program object on the application data units;
- c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software;
- d. performing of second functions of the second program object on the first data units;
- e. supplying of the resulting second data units to the network device driver program;

wherein supplying data units between program objects is accomplished by passing references pointing to memory locations storing data of the data units such that the references are passed between program objects and the data of the data units is not passed directly between program objects, and

wherein for at least one application data unit, the referenced memory location storing data of the application data unit is the same memory location as the referenced memory location storing at least some of the data of the corresponding first data unit and as the referenced memory location for storing at least some of the data of the corresponding second data unit.

(emphasis added)

Accordingly, in one aspect of claim 1, the method includes the memory location storing data of the application data unit being pointed to by a reference passed between the program objects. This same memory location, pointed to by a reference passed between the program objects, also stores data of the corresponding first data unit and at least some data corresponding to the second data unit. In sum, one memory location stores data from each of three sets of data units, and this same memory location is pointed to by references passed between program objects.

In the August 25, 2005 Office Action, it is indicated in the rejection of claim 1 that Schwaderer “does not explicitly teach passing references and the data of the data units share the same memory location.” *Office Action, page 3*. This rejection of claim 1 appears to be very similar to that in the previous Office Action, except it is argued in the August 25, 2005 Office Action that Kanamori, instead of Schwaderer, teaches that the memory locations of the data units are the same. The Examiner maintains the position that Kanamori teaches the claimed reference passing system; i.e., “a system (Column 1, line 20 to Column 2, line 14; Fig. 1) of passing data (col. 1, line 21) between a transferer (Col. 1, line 27) and a transferee (Col. 1, line 28) using a

technique of passing references pointing to the memory location storing the data . . . (col. 1, lines 37-41).” *Final Office Action*, p.3. It is further indicated, “it would have been obvious to apply the teachings of Kanamori to the system of Schwaderer because this will increase the data transfer time As such, Schwaderer’s system could use the technique of Kanamori to perform functions on the data wherein the data is still kept in one memory location. After each time a function is being performed on the data, the data may change but the memory location of the data stays the same.” *Office Action*, p. 4.

It is axiomatic that for a rejection under 35 U.S.C. § 103 there must be some teaching or suggestion in the prior art to make the claimed combination. The mere fact that references can be combined or modified does not render the resultant combination obvious over the prior art unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 682 (Fed. Cir. 1990). If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984).

Despite the Examiner’s conclusion that “Schwaderer’s system could use the technique of Kanamori to perform functions on the data wherein the data is still kept in one memory location,” it is not indicated how Kanamori teaches or suggests keeping the data from each of three data units in the same memory location, as called for in claim 1. It is stated that Kanamori teaches a “ . . . technique of passing references pointing to the memory location storing the data . . .” (col. 1, lines 37-41). *Office Action*, page 4. Yet this passage does not describe keeping the data in the same memory location. In fact, Kanamori teaches away from providing a shared memory location for the data of the data units, as claimed. Kanamori recites, “[it] is an object of the invention to provide a method and system . . . for providing a group of parallel resources as a

proxy, or substitute, for a single shared resource.” *Kanamori, Abstract; col. 2, ll. 65-67* (*emphasis added*). In other words, the aim and purpose of Kanamori is to provide a system in which the accessed memory locations are distinct and separate — not the same — as described in claim 1.

The motivation for providing different accessible memory locations in Kanamori is based on the prior problems with multiple programs accessing data in shared memory protocol systems. *Kanamori, Col. 2, ll. 25-49*. For example, in a non-global operating system, in which the system is unable to allocate a global resource (such as a memory block) that is accessible to every program, the system creates a putatively global resource. *Kanamori, Col. 3, ll. 28 – 35*. When the facility detects that a transferor program is attempting to share with a transferee program this putatively global resource, the facility creates a proxy, or substitute resource accessible to the transferee. *Kanamori, Col. 3, lines 36-40*. In other words, the transferee accesses a proxy memory block that is separate and distinct from memory accessible to the transferor program. If one were to modify Kanamori to accomplish the claimed aim of providing a shared referenced memory location, as claimed, one would render Kanamori unsatisfactory for its intended purpose. This is not allowable. See *In re Gordon*, 733 F.2d at 902. Thus, Kanamori and Schwaderer, alone or in combination, fail to teach, suggest or render obvious the system described in claim 1.

Further, the combination of Schwaderer and Kanamori would teach against the efficient data transfer process of claim 1. In Kanamori, actual data is copied prior to its access by the different program objects. The data itself is passed, rather than references to the data, as required by claim 1. For instance, when creating a “proxy memory block,” the facility “preferably copies the contents of the putatively global memory block to the proxy memory blocks.” *Kanamori*,

Col. 3, ll. 46-49. In other words, in Kanamori an entire set of data within the memory block is copied before it is accessed by a second program object. This process fails to teach the present invention's advantage of decreasing the data transfer time by only passing references, in place of copying data. Kanamori teaches away from the required "passing references" and "same memory location" limitations of claim 1, and thus cannot be combined with Schwaderer to render obvious claim 1. Accordingly, Kanamori and Schwaderer, individually or in combination, fail to teach or suggest all the limitations of claim 1.

Based on the foregoing discussion, it is respectfully submitted that claim 1 should be allowable over Schwaderer and Kanamori. Since claims 2, 5-8, 12, and 21 depend from claim 1, claims 2, 5-8, 12 and 21 should also be allowable over Schwaderer and Kanamori. Since claims 15 and 18 closely parallel, and recite substantially similar limitations as those recited in, claim 1, claims 15 and 18 should also be allowable over Schwaderer and Kanamori.

Accordingly, it is submitted that the rejection of claims 1-2, 5-8, 12, 15-16, 18 and 21 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 9-11, 17, 20 and 22

In Section 4 of the Office Action, claims 9-11, 17, 20 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Tanenbaum (Network Architecture, 1992 publication; hereinafter referred to as "Tanenbaum"). This rejection is respectfully traversed below.

Claims 9-11, 20, and 22 depend from claim 1. As discussed above, it is submitted that the rejection of claim 1 has been overcome. Therefore, it is respectfully submitted that the

rejections of claims 9-11, 20 and 22 have also been overcome through the dependence of claims 9-11, 20 and 22 upon claim 1.

Further, regarding claim 20 as shown above, claim 20 calls for:

20. (Previously Presented) Method according to claim 10, wherein at least two data units referenced by a service data unit are stored in non-contiguous portions of memory.

Accordingly, in claim 20, for at least one service data unit, at least two data units referenced by the service data unit are stored in non-contiguous portions of memory. (See Specification, e.g., Figures 5-7.) It is indicated that Tanenbaum (last paragraph page 21 to line 3 page 22) teaches or discloses claim 20, yet this passage fails to address how data is stored or arranged in memory. Therefore, this passage fails to teach or suggest storing the data units referenced by a service data unit in non-contiguous portions of memory. For this reason as well, Schwaderer, Kanamori, and Tanenbaum, alone or combination, fail to teach or suggest all the limitations of claim 20.

Further, regarding claim 22 as shown above, claim 22 calls for:

22. (Previously Presented) Method according to claim 1, further comprising creating a service data unit for each application data unit, each service data unit including a size value indicating the size of data of the application data unit and an offset value indicating the memory location storing data of the application data unit,

wherein supplying data units between program objects by passing references includes passing service data units corresponding to the supplied data units.

Accordingly, in one aspect of claim 22, the service data unit for an application data unit includes a size value and an offset value. The size value and offset value indicate aspects of the data and memory location referenced by the service data unit. *See Specification, e.g., Figure 5-*

7. On page 7 of the Office Action, it is indicated:

Tanenbaum further teaches creating a service data unit (SDU, line 4 last paragraph page 21) with a size value and an offset value for each application data unit (second paragraph page 22).

It is thus argued that the SDU discussed in Tanenbaum contains a size value and offset value for each application data unit. However, the cited portion of Tanenbaum does not discuss a size value or offset value at all. Rather, this section discusses how an SDU, as part of IDU, is sent across a network, along with control information. The control information may contain the number of bites of the SDU. However, the size value in claim 22 indicates the size of data of the application data unit, not the service data unit. Thus, Tanenbaum fails to teach or suggest the SDU with a size value and offset value for each application data unit, as claimed. Therefore, Schwaderer, Kanamori and Tanenbaum, alone or in combination, fail to teach or suggest all the limitations claim 22.

Based upon the foregoing, it is submitted that claims 9-11, 17, 20 and 22 are allowable over the combination of Schwaderer, Kanamori, and Tanenbaum. Accordingly, it is submitted that the rejection of claims 9-11, 17, 20 and 22 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 4, 13, and 19

In Section 5 of the Office Action, claims 4, 13, and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Jardine (U.S. Patent 5,619,647; hereinafter referred to as “Jardine”). This rejection is respectfully traversed below.

Claims 4, 13, and 19 depend from claim 1. As discussed above, it is submitted that the rejection of claim 1 has been overcome. Therefore, it is respectfully submitted that the rejection

of claims 4, 13, and 19 has also been overcome through the dependence of claims 4, 13, and 19 on claim 1.

Based upon the foregoing, it is submitted that claims 4, 13 and 19 are allowable over the combination of Schwaderer, Kanamori, and Jardine. Accordingly, it is submitted that the rejection of claims 4, 13, and 19 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 14

In Section 6 of the Office Action, claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Phillips (U.S. Patent 6,289,393). This rejection is respectfully traversed below.

Claim 14 depends from claim 1. As discussed above, it is submitted that the rejection of claim 1 has been overcome. Therefore, it is respectfully submitted that the rejection of claim 14 has also been overcome through the dependence of claim 14 on claim 1.

Based upon the foregoing, it is submitted that claim 14 is allowable over the combination of Schwaderer, Kanamori, and Phillips. Accordingly, it is submitted that the Examiner's rejection of claim 14 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

CONCLUSION

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-2 and 4-22 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

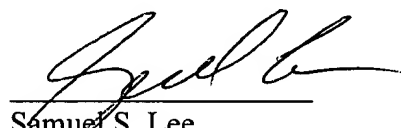
In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicants' representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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